



Encapsulation Material Change for Cavity-Down BG Packages for Defense-Grade (XQ) Products

XCN13014 (v1.0) May 20, 2013

Product Change Notice- For Information Only

Overview

The purpose of this notification is to communicate a material change for die encapsulation for all cavity-down plastic ball grid array BG packages. This change is due to Xilinx's assembly material supplier discontinuing one of the raw materials used in the current Henkel FP4450 series, replacing it with Henkel CB0260T. Henkel CB0260AT has been qualified and in production at Xilinx for over 10 years with BGG lead-free products. This notification applies to all Defense-grade (XQ) BG grade FPGA products.

Description

Xilinx's assembly material supplier is discontinuing one of the raw materials used in the current Henkel FP4450 series, replacing it with Henkel CB0260T. Henkel CB0260AT has been qualified and in production at Xilinx for over 10 years with BGG lead-free products. This notification applies to all Defense-grade (XQ) BG grade FPGA products.

This alternative encapsulation can withstand solder reflow temperatures up to 250°C after being exposed to JEDEC level 3 (30°C/60% RH, 192 hours) preconditioning. It was formulated to meet the "Green" non-halide objectives. There will be no FP4450 material availability by the end of August 2013.

These changes have no effect on form, fit, function or reliability.

Products Affected

This change affects all standard, specification control document (SCD) Defense-grade (XQ) grade devices listed in [Table 1](#).

Table 1: Affected **FPGA** devices families

Part Number
XQV1000-4BG560N
XQV300-4BG352N
XQV300-5BG352N
XQV300-4BG432N
XQV300-4BG432NES
XQV600-4BG432N
5962-9957201NNA
5962-9957201NUA
5962-9957301NUA

Key Dates and Ordering Information

Xilinx will begin to cross ship both current and alternative encapsulation by September 1, 2013.

Qualification Data

Xilinx has performed additional qualification for Henkel CB0260AT with BGG packages using Xilinx device/packages listed in [Table 2](#). Xilinx qualification data will be available per the schedule in [Table 3](#).

Table 2: Package Reliability Qualification Result

Qual Vehicle	Rel Test	Sample Size	Judgment
XCV1000E-BGG560	HTS(150 °C)1000 hrs	0/45 x 3 lots	Passed
	TCB 1000 cycles	0/45 x 2 lots	Passed
	HAST(130°C) 96 hrs	0/45 x 1 lot	Passed
	THB1000 hrs	0/45 x 1 lot	Passed
XCV405E-BGG560	HAST(130°C) 96 hrs	0/45 x 1 lot	Passed
XCV300E-BGG352	TCB1000cycles	0/45 x 1 lot	Passed

Table 3: Qualification Schedule

Package Type	Alternative encapsulation	Estimated Conditional Qualification Schedule	Estimated Production Release Schedule
XCV1000E-BGG560	CB0260AT	August 30, 2013	September 1, 2013

Response

No response is required. For additional information or questions, please contact [Xilinx Technical Support](#).

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Revision History

The following table shows the revision history for this document:

Date	Version	Description of Revisions
5/20/2013	1.0	Initial release

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